

PATENT APP. NO. 10/035,214

ATTY. DOCKET NO. 53394.000548

AMENDMENT IN RESPONSE TO JULY 28, 2005 OFFICE ACTION

#### **IV. REMARKS/ARGUMENTS**

##### **A. Status of the Claims**

Claims 1-33 are pending in the application, of which claims 20-33 were previously withdrawn from further consideration by the Examiner. Claims 1-9 and 12-19 stand rejected by the Examiner. Claims 10 and 11 stand objected to for being dependent upon a rejected base claim, but are otherwise allowable. By this amendment claims 1, 10, and 11 are amended, and claims 34-59 are added. No new matter is added.

Claims 20-33, which were previously withdrawn from consideration by the Examiner, are hereby canceled, without prejudice or waiver, in order to expedite prosecution. Applicant reserves the right to pursue the canceled subject matter in a continuing or divisional application.

Applicant respectfully requests reconsideration of the rejections of 1-9 and 12-19, and consideration and allowance of claims 1-19 and 34-59 for at least the following reasons.

##### **B. Amendments to the Specification**

Applicant hereby amends the Specification to correct a typographical error. In specific, on page 32 of the Specification, the paragraph starting on line 24 is hereby amended to refer to Figure 9, rather than Figure 8. Support for this amendment is found in Figure 9, in which combining drum 800 is referenced.

##### **C. Allowable Subject Matter**

The Office Action indicates that claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, Applicant has amended claims 10 and 11 to include the features of independent claim 1 and intervening claim 5. In addition, Applicant has introduced

PATENT APP. NO. 10/035,214  
ATTY. DOCKET NO. 53394.000548

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AMENDMENT IN RESPONSE TO JULY 28, 2005 OFFICE ACTION

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new claims 34-44 which depend from claim 10, and claims 45-59, which depend from claim 11. These claims are supported, for example, by original claims 2-4, 6-9, and 12-19. No new matter is introduced by these claim amendments and additions. Therefore, Applicant respectfully requests consideration and allowance of claims 10-11, and 34-59.

**D. Claim Rejections under 35 U.S.C. § 103(a)**

Claims 1-9 and 12-19 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,807,364 to Hansen ("Hansen") in view of U.S. Patent No. 3,973,703 to Peschl ("Peschl"). Applicant respectfully traverses this ground of objection for at least the following reasons.

Independent claim 1 is hereby amended to recite "An apparatus for depositing particulate matter onto a supply of absorbent core fibrous substrate material moving in a machine direction comprising: a feed tray having an inlet for receiving a supply of particulate matter; a shuttle pan slideably positioned to form at least part of a lower pan of the feed tray; the shuttle pan having an outlet edge located proximal the supply of absorbent core fibrous substrate material, the outlet edge being offset in the machine direction from the feed tray inlet, and being located so that the supply of particulate matter passes over the outlet edge to exit the feed tray and be deposited on the supply of absorbent core fibrous substrate material . . . " Claim 1 (emphasis added). Support for this amendment may be found, for example, in Figures 3 and 4, in which the inlet chute (402) is offset in the machine direction from the outlet edge (406). *See also*, Specification, p. 40, ll. 13-16. The Specification further provides that the feed tray may be adapted to be a shuttle pan (404', in Figures 16 and 17), in which case the outlet edge (406) is the edge of the moving shuttle pan. Specification, p. 60, l. 23 - p. 61, l. 3. Therefore, no new matter has been added by this amendment.

Three criteria must be met to establish a prima facie case of obviousness: (1) there must be some suggestion or motivation to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art

PATENT APP. NO. 10/035,214  
ATTY. DOCKET NO. 53394.000548

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AMENDMENT IN RESPONSE TO JULY 28, 2005 OFFICE ACTION

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references must teach or suggest all the claim limitations. *See* MPEP § 2142 *et seq.* Applicant submits that a *prima facie* case has not been established because the cited references fail to disclose all of the claim limitations, namely the references fail to disclose an apparatus for depositing particulate material onto fibrous substrate that includes a feed tray having an inlet for receiving a supply of particulate matter, a shuttle pan having an outlet edge located proximal the supply of absorbent core fibrous substrate material, the outlet edge being offset in the machine direction from the feed tray inlet, as recited in claim 1.

The Office Action alleges that "Hansen discloses all aspects of the claimed invention but remains silent as to the portion of the apparatus that deposits the particulate matter." Office Action, page 2. Hansen also discloses an apparatus for an end user to use to deposit particulate materials to a supply of fibers, where the apparatus includes a mechanism (item 72) that "typically comprises a metering mechanism, although any suitable device for adding particles to fibrous materials may be used." *Id.* at col. 8, line 61 - col. 9, line 12. However, as the Office Action points out, Hansen is silent as to the apparatus that deposits the particulate material. Office Action, page 2.

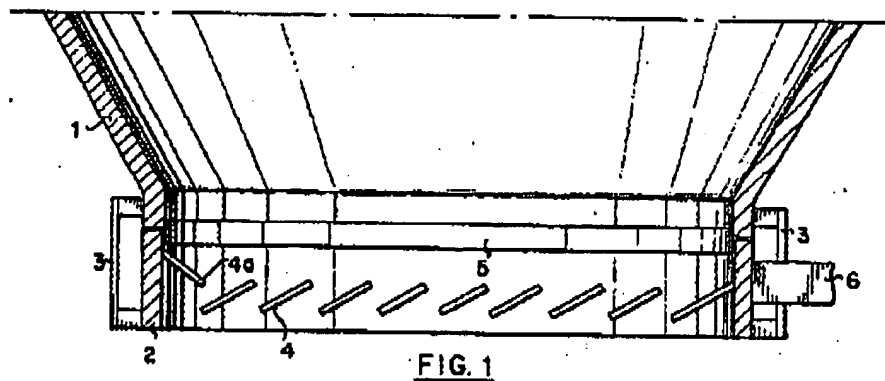
The Office Action further alleges that

Peschl discloses an apparatus for depositing particulate matter, as shown in figure 1, comprising a feed tray 7 having an open top providing an inlet for receiving a supply of particulate matter from outlet funnel 1. A shuttle pan 2 is slideably positioned to form the lower pan of the feed tray 7, as shown in figure 5. A mechanism 6 moves the shuttle pan 2 through a range of motion comprising strokes, as disclosed in column 2, lines 46-68. The apparatus taught by Peschl allows the discharge of particulate matter in an efficient manner, as disclosed in column 1, lines 58-64.

Office Action, page 3. Figure 1 of Peschl is reproduced below.

PATENT APP. NO. 10/035,214  
ATTY. DOCKET NO. 53394.000548

AMENDMENT IN RESPONSE TO JULY 28, 2005 OFFICE ACTION



In Figure 1, particulate material is introduced to a box, (not shown in Fig. 1) and frame (item 2) via an outlet funnel (item 1) of a bunker or silo. *Peschl*, col. 2, ll. 17-19. Within the frame is a plurality of strips (item 4) that are equally spaced at a distance  $a$ , and secured at an angle  $\alpha$  to the horizontal plane. *Id.* at col. 2, ll. 20-22. The spacing of the strips is determined such that when the frame is not vibrated, the powdery material bridges the gap between adjacent strips, blocking the flow therethrough. *Id.* at col. 2, ll. 32-37. When the frame is vibrated, the support for the bridges is forced from the state of equilibrium, and material passes between the strips so long as the frame is vibrated. *Id.* at col. 2, ll. 46-59. By controlling the frequency and amplitude of the reciprocations of the vibration, one can regulate the flow rate of the powdery material through the frame. *Id.* at col. 2, ll. 60-68.

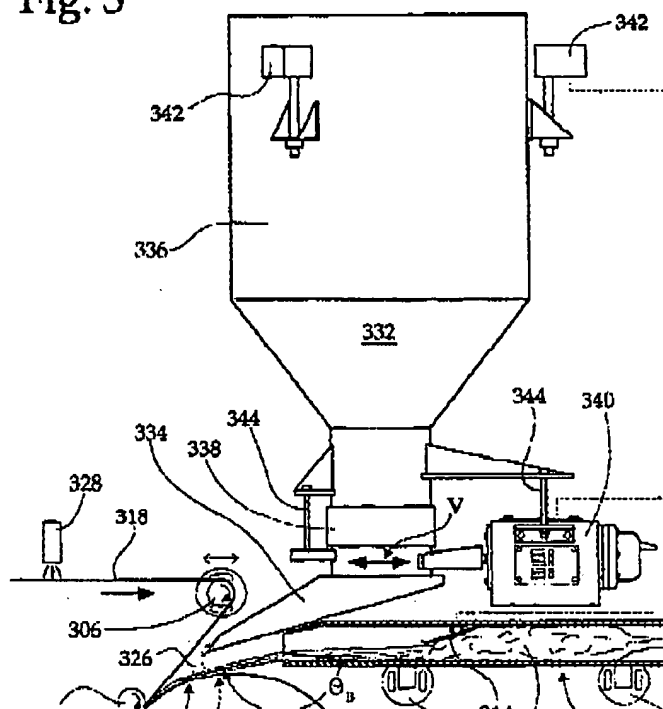
However, in *Peschl*, the flow of the powdery material is vertical throughout the disclosed apparatus. The powdery material is fed vertically from a silo through the outlet funnel (item 1) and to the box and frame that is vertically beneath it. *See id.*, Fig. 1. Both the inlet point and outlet point on each of the strips is located directly vertically beneath the outlet funnel, so that the direction of material flow is vertical through the box portion of the apparatus. *Id.* In direct contrast, the pending claims recite an apparatus in which the outlet edge of the shuttle pan is offset in the machine direction

PATENT APP. NO. 10/035,214  
 ATTY. DOCKET NO. 53394.000548

AMENDMENT IN RESPONSE TO JULY 28, 2005 OFFICE ACTION

from the feed tray inlet. To help illustrate this feature, a relevant portion of Figure 3 is reproduced below.

Fig. 3



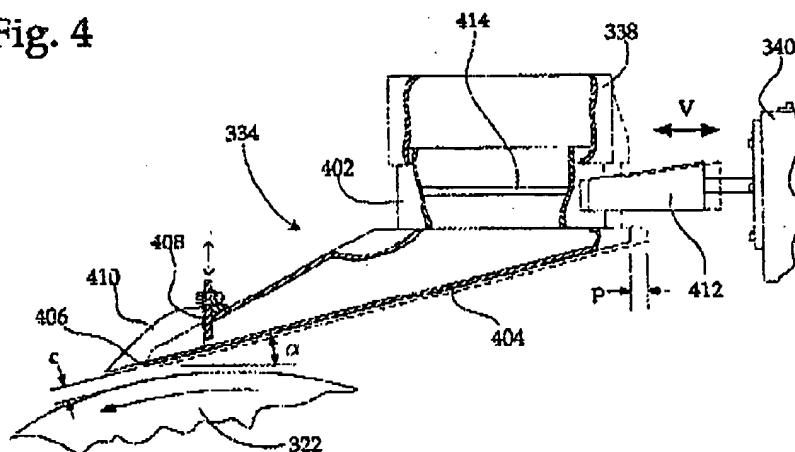
As shown in Figure 3, a vibratory feeder (332) comprises a feed tray (334) that is located vertically beneath a hopper (336). Specification, p.36, ll. 22-26. The SAP is fed to the feed tray by way of a flexible coupling 338. *Id.* at p. 36, ll. 25-26. The SAP exits the feed tray at a position offset from the inlet in the machine direction, to provide a supply of SAP (326) to the fibrous material.

The offset between the inlet and the outlet of the feed tray is further illustrated in Figure 4, reproduced below.

PATENT APP. NO. 10/035,214  
ATTY. DOCKET NO. 53394.000548

AMENDMENT IN RESPONSE TO JULY 28, 2005 OFFICE ACTION

Fig. 4



As shown in Figure 4, the feed tray comprises an inlet chute (402) and an outlet edge (406). *Id.* at p. 40, ll. 13-16. A pan (404) extends between the inlet and the outlet edge, such that the outlet edge is offset in the machine direction from the inlet. *Id.* One of the benefits of the claimed apparatus is that having the outlet edge offset from the inlet enables a machine designer to easily fit the tray outlet edge (and thus the SAP outlet stream 326) into a confined space, while placing the SAP hopper (which would not easily fit into the confined space) in a more remote location on the machine. The Specification provides that "it has been found that the feed tray's outlet edge 406 should be located as close as possible to the vacuum draw roll 322." *Id.* at p. 44, ll. 16-17. As shown in Figure 3, this region is often encumbered by other machine parts, such as one or more movable rollers or pulleys (306), or adhesive applicators (328), or other machine components that prevent the location of the SAP hopper directly vertically above the desired SAP supply stream location. By providing a feed tray that has an outlet edge offset in the machine direction from the inlet, the SAP supply stream may be located in the desired location, while the hopper is positioned elsewhere.

Neither Hansen nor Peschl disclose an apparatus for depositing particulate material onto fibrous substrate that includes a feed tray having an inlet for receiving a supply of particulate matter, a shuttle pan having an outlet edge located proximal the

PATENT APP. NO. 10/035,214  
ATTY. DOCKET NO. 53394.000548

AMENDMENT IN RESPONSE TO JULY 28, 2005 OFFICE ACTION

supply of absorbent core fibrous substrate material, the outlet edge being offset in the machine direction from the feed tray inlet, as recited in claim 1. As such, Applicant respectfully submits that claims 1-9 and 12-19 are patentable over Hansen and Peschl, and therefore respectfully requests that the Examiner reconsider and withdraw these claim rejections.

PATENT APT. NO. 10/035,214

ATTY. DOCKET NO. 53394.000548

AMENDMENT IN RESPONSE TO JULY 28, 2005 OFFICE ACTION

**V. CONCLUSION**

The Applicant respectfully submits that the application is in condition for allowance. For the claims added to the application in this amendment, the Patent Office is authorized to charge the fee in the amount of \$550.00 to the undersigned's Deposit Account Number 50-0206. In the event of any variance in this amount, please charge or credit any difference to Deposit Account No. 50-0206. Should any outstanding issues remain, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,  
HUNTON & WILLIAMS LLP

Dated: Oct. 28, 2005

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